UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,399	10/01/2003	Myoung-Ho Kim	1572.1172	5161

21171   7590   09/20/2006

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER
CUNNINGHAM, GREGORY F

ART UNIT	PAPER NUMBER
2628	

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/674,399	KIM, MYOUNG-HO
	Examiner	Art Unit	
	Greg F. Cunningham	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 11-13* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 11-13* is/are rejected.

7)☒ Claim(s) *1 and 5* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some *   c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-SB/08) Paper No(s)/Mail Date *[?-[?-0?]*

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to communications of application received 6/16/2006.

2.   The disposition of the claims is as follows: claims 1-8 and 11-13 are pending in the

application. Claims 1, 4, 6, 8 and 11 are independent claims. Although claim 9 has not been

mentioned, claims 9-10 have been cancelled. See Examiner's Amendment for claim 9.

3.   When making claim amendments, the applicant is encouraged to consider the references

in their entireties, including those portions that have not been cited by the examiner and their

equivalents as they may most broadly and appropriately apply to any particular anticipated claim

amendments.

Information Disclosure Statement

4.   The information disclosure statement filed 6/16/2006, attachment 1(g) for Japanese

Office Action issued March 28, 2006, fails to comply with 37 CFR 1.98(a)(3) because it does not

include a concise explanation of the relevance, as it is presently understood by the individual

designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each

patent listed that is not in the English language. It has been placed in the application file, but the

information referred to therein has not been considered.

Claim Objections

5.   Claim 1 is objected to because of the following informalities:

A.   Line 4 of claim 1 should most likely read as follows:

< "setting up in advance a display adjusting value for adjusting display settings of" >

(Examiner's Note: the "a" has been removed.)

B.   Claim 1 should terminate with a period, not a comma.

Appropriate correction is required.

6.   Claim 5 is objected to because of the following informalities:

A.   Line 5 of claim 5 should most likely read as follows:

<"a picture adjusting value storage <u>for</u> storing the input display adjusting value">

Claim Rejections - 35 USC § 112

7.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8.   Claims 1-4 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "in advance" in claims 1-3 and 11 is a relative term, which renders the claim indefinite. The term "in advance" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "in advance" implies a temporal or sequential order of events or actions, but yet does not indicate with respect to any reference, i.e.: ("in advance" of what or when; in advance of using it, or in advance of the next step, or second next step, or third?).

9.   Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for

omitting essential elements, such omission amounting to a gap between the elements. See MPEP

§ 2172.01. The omitted elements are: neither criteria nor distinction has been given to be able to

automatically determine that which is displayed on the displaying apparatus is a moving picture

or not a moving picture and to be able to ascertain this just by what is displayed on the

displaying apparatus. For instance, when comparing a flight simulation game or aviation combat

game to a television movie, the game may have many constantly moving action scenes in it,

while a television video may have a picturesque scene depicting no movement or action at all.

Claim Rejections - 35 USC § 101

10.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

11.   Claims 11-13 are rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter. See Interim Guidelines for Examination of Patent Applications

for Patent Subject Matter Eligibility, pages 50-53.

(Examiner's note: Claim 11, 2nd to 3rd line, "a machine-readable storage storing at least one

program controlling the computer system" should read as "a computer-readable medium encoded

with a computer program for controlling the computer system".

Examiner's Amendment

12.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with .

Gene M. Garner, II (Registration No. 34,172) on 9/15/2006.

The application has been amended as follows:

Claim 9.   (CANCELLED)

Claim Rejections - 35 USC § 103

13.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

14.   Claims 1, 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boger

(US 6,724,351 B1).

A.   Boger discloses claim 1, "A method of controlling a video control system in a computer

having a video controller [col. 2, lns. 49-54] supplying a picture signal to a displaying apparatus

[col. 2, lns. 12-28], comprising:

setting up in advance a display adjusting value for adjusting a display settings of a picture

displayed on the displaying apparatus [col. 4, ln. 59 – col. 5, ln. 8; wherein 'a computer graphics

mode' and 'a television mode' exist as part of display device 114 and therefore also correspond

to having been set up in advance; and furthermore wherein 'standard interlaced television signal'

and 'noninterlaced or progressively scanned output' correspond to "display adjusting value for

adjusting a display settings of a picture; col. 2, lns. 11-27, wherein television (interlaced) mode

optimizes TV signal for overscanning, increased brightness, color temperature, and so forth,

while computer graphics (noninterlaced) mode does so for underscanned, generally less bright

and more sharply focused than TV mode; col. 6, lns. 4-16 wherein 'Display 114 further

comprises a microprocessor or microcontroller 218 to provide standard digital monitor controls

to control, for example, brightness, contrast, vertical and horizontal sizing and positioning, on/off

(rest/resume), refresh rate, resolution, color temperatures. The control information may be input

by one or more of user-accessible manual controls (e.g., a push-button control panel), a remote

control unit (e.g., IR, RF, cabled, and so forth) operable to control the display, and circuitry for

receiving control information from the personal computer via display cable 214 (e.g., via an

operating system extension, standard PC utility, display-specific utility, and so forth).'];

selecting a conversion of the display settings according to a user selection [col. 2, ln. 64 –

col. 3, ln. 4, wherein user selects mode 1 or mode 2; and col. 7, lns. 5-20];

adjusting a signal of the picture to be supplied from the video controller to the displaying

apparatus, according to the user selection [col. 2, ln. 64 – col. 3, ln. 4; and col. 7, lns. 5-20] and

the display adjusting value set up in advance [col. 2, ln. 55 – col. 3, ln. 4; col. 7, lns. 21-34]; and

outputting the picture signal adjusted according to the display adjusting value to the

displaying apparatus from the video controller [col. 2, ln. 64 – col. 3, ln. 4; col. 5, ln. 54 – col. 6,

ln. 16; and col. 8, lns. 31-43]" [as detailed].

Although Boger does not specifically state that mode 1 and mode 2 has been set up in

advance, it must be true that mode 1 and mode 2 has already been established in advance with

the associated overscanning or underscanning, brightness, color temperature, and so forth, since

the user only is required to select one mode or the other. Therefore both modes, i.e. display settings for at least overscanning or underscanning, brightness, color temperature, and so forth, have gone through a setting up in advance process.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to set up in advance a TV mode and a computer graphics mode with their associated overscanning or underscanning, brightness, color temperature, and so forth settings as disclosed by Boger supra.

B.   Boger discloses claim 2, "The method according to claim 1, wherein the setting up of the display adjusting value in advance comprises setting a value for adjusting any one of brightness, color, contrast, and gamma [Boger: col. 6, lns. 1-16 <see brightness, contrast, vertical and horizontal sizing and positioning, on/off (rest/resume), refresh rate, resolution, color temperatures.>; and col. 2, lns. 42-48] of a moving picture [Boger: interlaced mode] displayed on the displaying apparatus [Boger: col. 1, lns. 48-58, wherein brightness and color temperature are preset according to "TV mode" or "computer graphics mode"]" supra for claim 1 and [as detailed]

Although Boger does not specifically state that brightness and color temperature are set up in advance, this must be true since it only requires changing from "TV mode" to "computer graphics mode" or vise versa.

C.   Boger discloses claim 11, "A computer system, comprising:

a video controller outputting an image signal to a displaying apparatus [col. 2, lns. 12-28 and 49-50]; and

a machine-readable storage storing at least one program controlling the computer system according to a process [col. 3, ln. 48 – col. 5, ln. 47, corresponding to 'The central processing system 102 includes a central processing unit such as a microprocessor or microcontroller for executing programs, performing data manipulations and controlling the tasks of the hardware system 100." and "The main memory 104 provides storage of instructions and data for programs executing on the central processing system 102."] comprising:

setting up in advance a display adjusting value adjusting a displaying settings status of a image displayed on the displaying apparatus [col. 4, ln. 59 – col. 5, ln. 8; wherein 'a computer graphics mode' and 'a television mode' exist as part of display device 114 and therefore also correspond to having been set up in advance; and furthermore wherein 'standard interlaced television signal' and 'noninterlaced or progressively scanned output' correspond to "display adjusting value for adjusting a display settings of a image displayed"];

selecting an adjustment of the display settings according to a user selection [col. 2, ln. 64 – col. 3, ln. 4, wherein user selects mode 1 or mode 2; and col. 7, lns. 5-20];

adjusting the image signal according to the user selection [col. 2, ln. 64 – col. 3, ln. 4; and col. 7, lns. 5-20] and the display adjusting value set up in advance [col. 2, ln. 55 – col. 3, ln. 4; col. 7, lns. 21-34]; and

outputting the adjusted image signal to the video controller to be output to the displaying apparatus [col. 2, ln. 64 – col. 3, ln. 4; col. 5, ln. 54 – col. 6, ln. 16; and col. 8, lns. 31-43]" [as detailed].

Although Boger does not specifically state that mode 1 and mode 2 has been set up in advance, it must be true that mode 1 and mode 2 has already been established in advance since

the user only is required to switch from one to the other. Therefore both modes, i.e. display

settings, have gone through a setting up in advance process.

15.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boger (US

6,724,351 B1), as applied to claim 2 above, and further in view of Iwaki (US 6,567,097 B1).

A.   Boger discloses claim 3, "The method according to claim 2, further comprising:

        selecting a picture conversion automatic execution function to allow the displaying status

of the picture to be automatically converted if the moving picture is displayed on the displaying

apparatus;

        ascertaining whether the moving picture is displayed on the displaying apparatus;

        adjusting the signal of the moving picture supplied from the video controller to the

        displaying apparatus according to the display adjusting value set up in advance, if

ascertained that the moving picture is displayed on the displaying apparatus; and

        allowing the moving picture adjusted according to the display adjusting value to be

displayed on the displaying apparatus from the video controller" supra for claim 2 and [as

detailed].

        However Boger does not appear to disclose, "selecting a picture conversion

automatic execution function to allow the displaying status of the picture to be automatically

converted if the moving picture is displayed on the displaying apparatus [Iwaki: col. 10, ln. 54 –

col. 11, ln. 15 wherein 'mode switching among different sources can also be automatically done'

corresponds to "automatic execution"];

ascertaining whether the moving picture is displayed on the displaying apparatus

[corresponds with Iwaki: col. 9, 30-35; and col. 11, lns. 4-8, wherein 'the interlaced data bypass

circuit 501 or the like checks if interlaced video data is input, and upon detection of interlaced

video data, corresponding parameters are set in registers of the graphics controller 105 by

hardware'];

adjusting the signal of the moving picture supplied from the video controller to the

displaying apparatus according to the display adjusting value set up in advance [corresponds

with Iwaki: col. 2, lns. 12-21; and col. 10, ln. 54 – col. 11, ln. 15, for 'video mode setup in the

interlaced display mode by setting parameters in registers of the graphics controller'], if

ascertained that the moving picture is displayed on the displaying apparatus [corresponds with

Iwaki: col. 11, lns. 4-8, wherein 'the interlaced data bypass circuit 501 or the like checks if

interlaced video data is input, and upon detection of interlaced video data, corresponding

parameters are set in registers of the graphics controller 105 by hardware']", but Iwaki does [as

detailed].

Iwaki's disclosure in col. 11, lns. 4-8, of 'That is, the interlaced data bypass circuit 501 or

the like checks if interlaced video data is input, and upon detection of interlaced video data,

corresponding parameters are set in registers of the graphics controller 105 by hardware' meets

the condition of "ascertaining whether the moving picture is displayed on the displaying

apparatus" and also the "conditional if" via 'checks if interlaced video data is input, and upon

detection ...' and furthermore Iwaki in col. 9, lns. 30-35 discloses 'when interlaced video data is

displayed on the CRT, the CRT is automatically switched from the noninterlaced display mode

to the interlaced display mode to directly output the video data as interlaced data to the CRT and

to interlaced-display the video data.'

Therefore it would have been obvious to one of ordinary skill in the art at the time the

invention was made to apply mode selection with associated brightness and color temperature

setting disclosed by Boger in combination with check for interlaced video and upon detection

switch modes disclosed by Iawki, and motivated to combine the teachings because 'when such

data are displayed on a display monitor of a computer, the interlaced display data output from the

DVD decoder must be converted into noninterlaced display data. The interlace to noninterlace

conversion is done by a display controller that controls the display monitor' as revealed in col. 1,

lns 32-36.

16.   Claims 4, 5, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Boger (US 6,724,351 B1), and further in view of Notomi, Kazumi (JP 07204350 A), hereinafter

Notomi.

A.   Boger discloses claim 4, "A method of controlling a video control system in a computer

having a video controller [col. 2, lns. 49-54] supplying a picture signal to a displaying apparatus

[col. 2, lns. 12-28] and a video driver controlling the video controller, comprising:

setting up in advance, at an application level of the computer operating system [Boger:

col. 6, ln. 61 – col. 7, ln. 4, corresponding with 'FIG. 3 shows a block diagram of a preferred

video display control system according to the present invention. The present invention may be

implemented in software 302 which may be tangibly embodied on a medium readable by a

computer and capable of causing the computer to execute the method according to the present

invention. Software 302 may be implemented as a part of or as an extension of an operating

system or software application environment, such as an audiovisual control panel or the like, for

example, of the type including controls for selection and playback of A/V sources and other A/V

features.'], a display adjusting value for adjusting a displaying status of a picture to be displayed

on the displaying apparatus [Boger: col. 4, ln. 59 – col. 5, ln. 8; wherein 'a computer graphics

mode' and 'a television mode' exist as part of display device 114 and therefore also correspond

to having been set up in advance; and furthermore wherein 'standard interlaced television signal'

and 'noninterlaced or progressively scanned output' correspond to "display adjusting value for

adjusting a display settings of a picture; col. 2, lns. 11-27, wherein television (interlaced) mode

optimizes TV signal for overscanning, increased brightness, color temperature, and so forth,

while computer graphics (noninterlaced) mode does so for underscanned, generally less bright

and more sharply focused than TV mode; col. 6, lns. 4-16 wherein 'Display 114 further

comprises a microprocessor or microcontroller 218 to provide standard digital monitor controls

to control, for example, brightness, contrast, vertical and horizontal sizing and positioning, on/off

(rest/resume), refresh rate, resolution, color temperatures. The control information may be input

by one or more of user-accessible manual controls (e.g., a push-button control panel), a remote

control unit (e.g., IR, RF, cabled, and so forth) operable to control the display, and circuitry for

receiving control information from the personal computer via display cable 214 (e.g., via an

operating system extension, standard PC utility, display-specific utility, and so forth).'];

hooking a user input signal transmitted to the operating system [Boger: col. 9, ln. 47 –

col. 10, ln. 8, corresponding with 'sets of instructions' and/or 'applets'];

ascertaining whether the input signal is any one of a game picture or a moving picture;

supplying the display adjusting value set up in advance to the video driver, if conversion

of the picture displaying status is selected based on the ascertaining result;

adjusting in the video driver the picture signal to be supplied to the video controller based

on the supplied display adjusting value; and

outputting the adjusted picture signal to the displaying apparatus from the video

controller [Boger: col. 2, ln. 64 – col. 3, ln. 4; col. 5, ln. 54 – col. 6, ln. 16; and col. 8, lns. 31-

43]"

While Boger does not specifically state supplying the display adjusting value to the video

driver, Boger does disclose that the control information operable to control the display, and

circuitry for receiving control information from the personal computer via display cable 214

(e.g., via an operating system extension, standard PC utility, display-specific utility, and so

forth). Furthermore, Boger employs a video controller and software application operating as part

of an extension of an operating system, it is well known and inherent that the various hardware

components of a computer system employ and use software drivers, for example a video

controller inherently employs a video software driver. Therefore when control information is

supplied to Boger's apparatus for changing the mode of a display apparatus, it must inherently

also be asserted through the video driver, since it is well known and inherent that a video driver

acts as the interface between a video controller and a video display.

In as much as Boger discloses interlaced and noninterlaced modes associated with TV

and computer graphics modes, respectively, Boger does not appear to specifically identify the

computer graphics mode as games, as claimed in:

"ascertaining whether the input signal is any one of a game picture or a moving picture;

supplying the display adjusting value set up in advance to the video driver, if conversion

of the picture displaying status is selected based on the ascertaining result;

adjusting in the video driver the picture signal to be supplied to the video controller based

on the supplied display adjusting value".

However, Notomi does accordingly:

"ascertaining whether the input signal is any one of a game picture or a moving picture

['adding an identification signal to a video signal to be outputted from a game machine to judge

the identification signal' and 'In a game machine 1, a game soft executing section 1a is arranged

to execute a game soft 3 mounted thereon and an ID encoder 1b to add to a video signal an ID

code for indicating the signal as video signal outputted from the game machine 1. On the other

hand, in a TV unit 2, a detecting section 2a is arranged to detect the ID code added to the video

signal, an ID decoder 2d to decode the ID code detected and a ROM 2c,'];

supplying the display adjusting value set up in advance to the video driver, if conversion

of the picture displaying status is selected based on the ascertaining result ['while the quality of

picture of an image is adjusted to be outputted to a screen of a TV unit according to the results of

the judgment.' and 'a TV unit 2, a detecting section 2a is arranged to detect the ID code added to

the video signal, an ID decoder 2d to decode the ID code detected and a ROM 2c, having set data

of contrast and luminance corresponding to the ID code decoded stored therein separately.'];

adjusting in the video driver the picture signal to be supplied to the video controller based

on the supplied display adjusting value ['To enable automatic adjustment of a proper quality of

picture by adding an identification signal to a video signal to be outputted from a game machine

to judge the identification signal while the quality of picture of an image is adjusted to be outputted to a screen of a TV unit according to the results of the judgment.']:.

Although Notomi does not appear to disclose (a) value set up in advance; and (b) use of a video driver; the former is obvious since the automatic adjustment of a proper quality of picture and having set data of contrast and luminance corresponding to the ID code stored therein separately corresponds to "supplying the display adjusting value set up in advance". As to the former "video driver", Boger has disclosed this as obvious as revealed supra for claims 1-3.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'method and apparatus for changing the mode of a display apparatus' disclosed by Boger in combination with TV-Game system disclosed by Notomi, and motivated to combine the teachings because they are all in the same related field of art, i.e. improving picture quality based whether viewing a computer graphics (game) or TV video signal (moving picture).

B.   Boger discloses claim 5, "A system for video control in a computer having a video controller [col. 2, lns. 49-54] supplying a picture signal to a displaying apparatus [col. 2, lns. 12-28], comprising:

a display adjusting input part allowing input of a display adjusting value adjusting a displaying status of a picture displayed on the displaying apparatus [Boger: col. 4, ln. 59 – col. 5, ln. 8; wherein 'standard interlaced television signal' and 'noninterlaced or progressively scanned output' correspond to "display adjusting input part allowing input of a display adjusting value adjusting a displaying status of a picture displayed on the displaying apparatus; col. 2, lns. 11-27, wherein television (interlaced) mode optimizes TV signal for overscanning, increased brightness,

color temperature, and so forth, while computer graphics (noninterlaced) mode does so for

underscanned, generally less bright and more sharply focused than TV mode corresponds to

"display adjusting input part allowing input of a display adjusting value adjusting a displaying

status of a picture displayed on the displaying apparatus"; col. 6, lns. 4-16 wherein 'Display 114

further comprises a microprocessor or microcontroller 218 to provide standard digital monitor

controls to control, for example, brightness, contrast, vertical and horizontal sizing and

positioning, on/off (rest/resume), refresh rate, resolution, color temperatures. The control

information may be input by one or more of user-accessible manual controls (e.g., a push-button

control panel), a remote control unit (e.g., IR, RF, cabled, and so forth) operable to control the

display, and circuitry for receiving control information from the personal computer via display

cable 214 (e.g., via an operating system extension, standard PC utility, display-specific utility,

and so forth).'];

a picture adjusting value storage storing the input display adjusting value [corresponds with

col. 5, ln. 54 – col. 6, ln. 16, wherein 'Display 114 further comprises a microprocessor or

microcontroller 218 to provide standard digital monitor controls to control, for example,

brightness, contrast, vertical and horizontal sizing and positioning, on/off (rest/resume), refresh

rate, resolution, color temperatures.' Microprocessors and/or microcontrollers inherently employ

memory in the form of RAM, ROM, PROM EEPROM, VRAM, SGRAM, (see col. 3, ln. 48 –

col. 4, ln. 58 for memory types and connections) and internal registers to store and operate on all

digital input/output information data. Therefore it would have been obvious to one of ordinary

skill in the art at the time the invention was made to use microprocessors and/or microcontrollers

disclosed by Boger in conjunction with memory for "storing input display adjusting value".];

a displaying status conversion part selecting a conversion of the displaying status of the

picture displayed on the displaying apparatus according to a user selection [col. 2, ln. 64 – col. 3,

ln. 4, wherein user selects mode 1 or mode 2; col. 6, lns. 4-8 at 'Display 114 further comprises a

microprocessor or microcontroller 218 to provide standard digital monitor controls to control, for

example, brightness, contrast, vertical and horizontal sizing and positioning, on/off (rest/resume),

refresh rate, resolution, color temperatures.'; and col. 7, lns. 5-20; and wherein "displaying

status" is interpreted from specification at "when changing the display settings by the OSD, a

brightness value, a contrast value, and so on, respectively need to be increased or otherwise

decreased to set an adequate displaying status of the picture" such that changing a brightness

value, a contrast value, and so on, corresponds with "a displaying status conversion" as

exemplified by Boger supra.]; and

a controller [col. 6, lns. 4-8 at 'Display 114 further comprises a microprocessor or

microcontroller 218 to provide standard digital monitor controls to control, for example,

brightness, contrast, vertical and horizontal sizing and positioning, on/off (rest/resume), refresh

rate, resolution, color temperatures.'] controlling the video controller [col. 2, lns. 49-67; col. 5,

ln. 54 – col. 6, ln. 16; see video controller] and changing a picture signal to be output from the

video controller based on the stored display adjusting value [Boger: col. 5, ln. 54 – col. 6, ln. 16],

in response to the selected displaying status conversion [col. 2, ln. 55 – col. 3, ln. 4; col. 7, lns.

21-34];

wherein the picture adjusting value comprises any of a moving picture or a game picture"

[as detailed].

In as much as Boger discloses interlaced and noninterlaced modes associated with TV

and computer graphics modes, respectively, Boger does not appear to specifically identify the

computer graphics mode as games, as claimed in:

"wherein the picture adjusting value comprises any of a moving picture or a game

picture".

However, Notomi does accordingly:

['To enable automatic adjustment of a proper quality of picture by adding an identification signal

to a video signal to be outputted from a game machine to judge the identification signal while the

quality of picture of an image is adjusted to be outputted to a screen of a TV unit according to the

results of the judgment.

In a game machine 1, a game soft executing section 1a is arranged to execute a game soft

3 mounted thereon and an ID encoder 1b to add to a video signal an ID code for indicating the

signal as video signal outputted from the game machine 1. On the other hand, in a TV unit 2, a

detecting section 2a is arranged to detect the ID code added to the video signal, an ID decoder 2d

to decode the ID code detected and a ROM 2c, having set data of contrast and luminance

corresponding to the ID code decoded stored therein separately. A screen to be outputted onto a

CRT 2e is controlled automatically with a normal screen/game mode screen control section 2d.']

Therefore it would have been obvious to one of ordinary skill in the art at the time the

invention was made to apply 'method and apparatus for changing the mode of a display

apparatus' disclosed by Boger in combination with TV-Game system disclosed by Notomi, and

motivated to combine the teachings because they are all in the same related field of art, i.e.

improving picture quality based whether viewing a computer graphics (game) or TV video signal (moving picture).

C.   Boger discloses claim 6, "The system according to claim 5, wherein the input display adjusting value [Boger: col. 6, lns. 1-16 <see brightness, contrast, vertical and horizontal sizing and positioning, on/off (rest/resume), refresh rate, resolution, color temperatures.>; and col. 2, lns. 42-48] is for displaying the moving picture [Boger: interlaced mode; and col. 1, lns. 48-58, wherein brightness and color temperature are preset according to "TV mode" or "computer graphics mode"]; and

the controller changes the picture signal [col. 6, lns. 4-16 wherein 'Display 114 further comprises a microprocessor or microcontroller 218 to provide standard digital monitor controls to control, for example, brightness, contrast, vertical and horizontal sizing and positioning, on/off (rest/resume), refresh rate, resolution, color temperatures.'] to be output from the video controller [col. 2, lns. 49-54] according to the stored moving picture display adjusting value [corresponds with col. 5, ln. 54 – col. 6, ln. 16, wherein 'Display 114 further comprises a microprocessor or microcontroller 218 to provide standard digital monitor controls to control, for example, brightness, contrast, vertical and horizontal sizing and positioning, on/off (rest/resume), refresh rate, resolution, color temperatures.' Microprocessors and/or microcontrollers inherently employ memory in the form of RAM, ROM, PROM EEPROM, VRAM, SGRAM, (see col. 3, ln. 48 – col. 4, ln. 58 for memory types and connections) and internal registers to store and operate on all digital input/output information data. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use microprocessors and/or

microcontrollers disclosed by Boger in conjunction with memory for "storing input display

adjusting value".] supra for claim 5 and [as detailed].

Therefore it would have been obvious to one of ordinary skill in the art at the time the

invention was made to apply 'method and apparatus for changing the mode of a display

apparatus' disclosed by Boger in combination with TV-Game system disclosed by Notomi, and

motivated to combine the teachings because they are all in the same related field of art, i.e.

improving picture quality based whether viewing a computer graphics (game) or TV video signal

(moving picture).

D.   Boger and Notomi disclose claim 8, "A computer video control system, comprising:

a programmed computer processor storing a display adjusting value to convert a displaying

status of a moving picture displayed on a monitor [Boger: col. 4, ln. 59 – col. 5, ln. 8; wherein

'standard interlaced television signal' and 'noninterlaced or progressively scanned output'

correspond to "display adjusting value to convert a displaying status of a moving picture

displayed on a monitor"; col. 2, lns. 11-27, wherein television (interlaced) mode optimizes TV

signal for overscanning, increased brightness, color temperature, and so forth, while computer

graphics (noninterlaced) mode does so for underscanned, generally less bright and more sharply

focused than TV mode; col. 6, lns. 4-16 wherein 'Display 114 further comprises a

microprocessor or microcontroller 218 to provide standard digital monitor controls to control, for

example, brightness, contrast, vertical and horizontal sizing and positioning, on/off (rest/resume),

refresh rate, resolution, color temperatures. The control information may be input by one or

more of user-accessible manual controls (e.g., a push-button control panel), a remote control unit

(e.g., IR, RF, cabled, and so forth) operable to control the display, and circuitry for receiving

control information from the personal computer via display cable 214 (e.g., via an operating

system extension, standard PC utility, display-specific utility, and so forth).'], selecting a

displaying status [col. 2, ln. 64 – col. 3, ln. 4, wherein user selects mode 1 or mode 2; col. 6, lns.

4-8 at 'Display 114 further comprises a microprocessor or microcontroller 218 to provide

standard digital monitor controls to control, for example, brightness, contrast, vertical and

horizontal sizing and positioning, on/off (rest/resume), refresh rate, resolution, color

temperatures.'; and col. 7, lns. 5-20; and wherein "displaying status" is interpreted from

specification at "when changing the display settings by the OSD, a brightness value, a contrast

value, and so on, respectively need to be increased or otherwise decreased to set an adequate

displaying status of the picture" such that changing a brightness value, a contrast value, and so

on, corresponds with "a displaying status conversion" as exemplified by Boger supra.] according

to a job processing [Boger: col. 6, ln. 61 – col. 7, ln. 4, corresponding with 'FIG. 3 shows a block

diagram of a preferred video display control system according to the present invention. The

present invention may be implemented in software 302 which may be tangibly embodied on a

medium readable by a computer and capable of causing the computer to execute the method

according to the present invention. Software 302 may be implemented as a part of or as an

extension of an operating system or software application environment, such as an audiovisual

control panel or the like, for example, of the type including controls for selection and playback of

A/V sources and other A/V features.', wherein 'a software application' corresponds to "job"],

and changing a moving picture signal output to the monitor in response to the displaying status

selection and based on the stored display adjusting value [Boger: col. 5, ln. 54 – col. 6, ln. 16];

wherein at least one of the stored display adjusting value relates to a moving picture

mode or a game picture mode" [as detailed].

In as much as Boger discloses interlaced and noninterlaced modes associated with TV

and computer graphics modes, respectively, Boger does not appear to specifically identify the

computer graphics mode as games, as claimed in:

"wherein at least one of the stored display adjusting value relates to a moving picture

mode or a game picture mode".

However, Notomi does accordingly:

['To enable automatic adjustment of a proper quality of picture by adding an identification signal

to a video signal to be outputted from a game machine to judge the identification signal while the

quality of picture of an image is adjusted to be outputted to a screen of a TV unit according to the

results of the judgment.

In a game machine 1, a game soft executing section 1a is arranged to execute a game soft

3 mounted thereon and an ID encoder 1b to add to a video signal an ID code for indicating the

signal as video signal outputted from the game machine 1. On the other hand, in a TV unit 2, a

detecting section 2a is arranged to detect the ID code added to the video signal, an ID decoder 2d

to decode the ID code detected and a ROM 2c, having set data of contrast and luminance

corresponding to the ID code decoded stored therein separately. A screen to be outputted onto a

CRT 2e is controlled automatically with a normal screen/game mode screen control section 2d.']

Therefore it would have been obvious to one of ordinary skill in the art at the time the

invention was made to apply 'method and apparatus for changing the mode of a display

apparatus' disclosed by Boger in combination with TV-Game system disclosed by Notomi, and

motivated to combine the teachings because they are all in the same related field of art, i.e.

improving picture quality based whether viewing a computer graphics (game) or TV video signal

(moving picture).

17.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boger (US

6,724,351 B1), and further in view of Notomi, Kazumi (JP 07204350 A), hereinafter Notomi, as

applied to claim 5 above, and further in view of Iwaki (US 6,567,097 B1).

A.   Boger and Notomi disclose claim 7, "The system according to claim 5, further

comprising an automatic execution selector automatically converting the displaying status if the

a moving picture is displayed on the displaying apparatus [Iwaki: col. 9, lns. 31-35,

corresponding with 'when interlaced video data is displayed on the CRT, the CRT is

automatically switched from the noninterlaced display mode to the interlaced display mode to

directly output the video data as interlaced data to the CRT and to interlaced-display the video

data'; and col. 10, ln. 54 – col. 11, ln. 15 wherein 'mode switching among different sources can

also be automatically done' corresponds to "automatic execution"];

        wherein the controller changes the moving picture signal to be output from the video

controller according to the stored display adjusting value [corresponds with Iwaki: col. 2, lns. 12-

21; and col. 10, ln. 54 – col. 11, ln. 15, for 'video mode setup in the interlaced display mode by

setting parameters in registers of the graphics controller'], if sensed that the moving picture is

displayed on the displaying apparatus [corresponds with Iwaki: col. 11, lns. 4-8, wherein 'the

interlaced data bypass circuit 501 or the like checks if interlaced video data is input, and upon

detection of interlaced video data, corresponding parameters are set in registers of the graphics controller 105 by hardware']" supra for claim 5 and [as detailed].

Iwaki's disclosure in col. 11, lns. 4-8, of 'That is, the interlaced data bypass circuit 501 or the like checks if interlaced video data is input, and upon detection of interlaced video data, corresponding parameters are set in registers of the graphics controller 105 by hardware' meets the condition of "ascertaining whether the moving picture is displayed on the displaying apparatus" and also the "conditional if" via 'checks if interlaced video data is input, and upon detection …' and furthermore Iwaki in col. 9, lns. 30-35 discloses 'when interlaced video data is displayed on the CRT, the CRT is automatically switched from the noninterlaced display mode to the interlaced display mode to directly output the video data as interlaced data to the CRT and to interlaced-display the video data.'

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply mode selection with associated brightness and color temperature setting disclosed by Boger in combination with TV-Game system disclosed by Notomi, and motivated to combine the teachings because they are all in the same related field of art, i.e. improving picture quality based whether viewing a computer graphics (game) or TV video signal (moving picture), and coupled with check for interlaced video and upon detection switch modes disclosed by Iawki, and motivated to combine the teachings because 'when such data are displayed on a display monitor of a computer, the interlaced display data output from the DVD decoder must be converted into noninterlaced display data. The interlace to noninterlace conversion is done by a display controller that controls the display monitor' as revealed by Iawki in col. 1, lns 32-36.

Allowable Subject Matter

18.   Claims 12 and 13 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Responses

19.   Responses to this action should be mailed to: Commissioner of Patents and Trademarks,

Washington, D.C. 20231.

Inquiries

20.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Gregory F. Cunningham whose telephone number is (571) 272-

7784.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kee Tung can be reached on (571) 272-7794. The Central FAX Number for the

organization where this application or proceeding is assigned is **571-273-8300.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory F. Cunningham
Examiner
Art Unit 2628

gfc

9/14/2006